

**Notice of Allowability**

Application No.

10/527,738

Examiner

Cindy D. Khuu

Applicant(s)

OKADA, TSUTOMU

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 9/7/06.
2. ☒ The allowed claim(s) is/are 7,10,11,14,15 and 18.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☒ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☒ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),  
Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_.

## DETAILED ACTION

### *Pertinent Art Cited*

The following US Patent Applications reveal the current state of the art:

Meuris et al. (US 2002/0042698) teach of an electromagnetic field analyzer (10; Paragraph 2) comprising: dividing means (15) for dividing form data as an analysis object into coarse elements (Fig. 22b) and fine elements (Fig. 22c)(Paragraphs 340 and 353); forming means (15) for forming a matrix defining an electromagnetic field vector of the coarse elements divided by the dividing means related to an electromagnetic field vector of the fine elements (Paragraphs 222 and 226); and calculating means (15) for calculating an approximate solution of the electromagnetic field vector of the fine elements by applying an iteration method of simultaneous linear equations while referring to the matrix formed by the forming means (Paragraphs 126).

However, Meuris does not teach at least of an electromagnetic field analyzer, wherein when the length of a side  $l_i$  of the fine element is  $|l_i|$ , an interpolation function showing a relationship between the electromagnetic field at position  $x$  of the side  $l_i$  of the fine element and the electromagnetic field at a side  $j$  of the coarse element is  $N_j^C(x)$ , and the tangential vector of the side  $l_i$  of the fine element is  $t_i$ , the forming means forms a matrix  $P_{ij}$  by using the following expression:  $P_{ij} = 1/l_i \int_{l_i} N_j^C(x) t_i dl$ .

### *Allowable Subject Matter*

Claims 7, 10, 11, 14, 15 and 18 are allowed.

The following is a statement of reasons for the indication of allowable subject matter:

The primary reason for the allowance of claims 7, 11 and 15 is the inclusion of the limitation "wherein when the length of a side  $l_i$  of the fine element is  $|l_i|$ , an interpolation function showing a relationship between the electromagnetic field at position  $x$  of the side  $l_i$  of the fine element and the

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electromagnetic field at a side  $j$  of the coarse element is  $N_j^C(x)$ , and the tangential vector of the side  $l_i$  of the fine element is  $t_i$ , the forming means forms a matrix  $P_{ij}$  by using the following expression:  $P_{ij} = 1/l_i \int_{l_i} N_j^C(x) t_i dl$ . The prior art of record, taken alone or in combination, fails to disclose or render obvious.

Claims 10, 14 and 18 are allowed due to their dependency on claims 7, 11 and 15.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

#### ***Fax/Telephone Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cindy D. Khuu whose telephone number is (571) 272-8585. The examiner can normally be reached on M-F, 7:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Barlow can be reached on (571) 272-2269. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

*CHL 9/11/06*